

HOLMA ET AL. -- 09/763,946
Client/Matter: 060256-0277099

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1.-34. (Cancelled)

35. (Currently Amended) A method of identifying information addressed to a user in a communication system, the method comprising:

transmitting, on a shared channel on which at least one receiver receives, data packets provided with a training sequence, wherein data packets addressed to at least one of different receivers and different receiver groups are provided with different training sequences;

generating a channel estimate value in a first receiver of the at least one of different receivers ~~receiver~~ and different receiver groups on the basis of the training sequence;

receiving data packets addressed to the first receiver;

attempting to identify the received data packets;

processing, in the first receiver, received data packets having a training sequence that the first receiver identifies; and

ignoring, in the first receiver, received data packets having a training sequence that the first receiver does not identify.

36. (Previously Presented) The method of claim 35, wherein attempting to identify the received data packets comprises comparing, in the receiver, the generated value of the channel estimate with a threshold value indicative of the quality of the channel, and

wherein processing the received data packets is performed when the generated value of the channel estimate exceeds the threshold value, and ignoring the received data packets is performed when the generated value of the channel estimate is less than the threshold value.

37. (Previously Presented) The method of claim 36, wherein the generated channel estimate value is a signal interference ratio, a carrier/interference ratio, a bit error rate, or a ratio of chip energy to disturbance power frequency.

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38. (Previously Presented) The method of claim 35, wherein the training sequence that the first receiver is to use on the shared channel is indicated to the first receiver before handover to the shared channel.

39. (Previously Presented) The method of claim 36, wherein the first receiver receives allocated time both on the shared channel and at least one parallel, dedicated channel.

40. (Previously Presented) The method of claim 39, wherein the at least one parallel dedicated channel is a control channel.

41. (Previously Presented) The method of claim 39, wherein each parallel dedicated channel uses a different training sequence.

42. (Previously Presented) The method of claim 39, wherein the first receiver uses, on the shared channel, the same training sequence as on the at least one parallel dedicated channel.

43. (Previously Presented) The method of claim 35, wherein the training sequence is indicated to the first receiver via at least one of a common control channel and a parallel dedicated channel before handover to the shared channel.

44. (Previously Presented) The method of claim 35, further comprising:
performing a cyclic redundancy check on identified data packets of the shared channel before processing.

45. (Previously Presented) The method of claim 39, wherein the threshold value for the channel estimate is generated on the basis of a data packet received on the at least one parallel dedicated channel.

46. (Previously Presented) The method of claim 35, wherein the communication system is a time division multiple access type of cellular radio network, the shared channel is

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a timeslot, and the data packets are radio bursts to be sent in the timeslot and include at least the training sequence and data.

47. (Previously Presented) The method of claim 44, wherein a time division duplex principle is used on a carrier of the shared channel.

48. (Previously Presented) The method of claim 44, wherein a plurality of radio bursts are simultaneously sent in a timeslot of the shared channel based on a code division multiple access principle using different spreading codes, and wherein different training sequences are used in radio bursts for at least one of different receivers and different receiver groups.

49. (Previously Presented) The method of claim 46, wherein the first receiver simultaneously receives a plurality of radio bursts with different spreading codes and accepts at least one radio burst having a training sequence that the first receiver identifies.

50. (Previously Presented) The method of claim 49, wherein the first receiver attempts to identify a radio burst by both the training sequence and the spreading code.

51. (Previously Presented) The method of claim 46, wherein the shared timeslot is allocated one time division multiple access frame at a time, and the training sequence is used to indicate to which receiver or receiver group the timeslot is allocated in each time division multiple access frame.

52. (Currently Amended) A communication system, comprising:
at least one transmitter that transmits data packets, wherein data packets addressed to at least one of different receivers and different receiver groups are provided with different training sequences; and

at least one receiver, wherein the at least one transmitter transmits, on a shared channel, data packets provided with a training sequence, on which channel the at least one receiver receives the data packets, generates a channel estimate on the basis of the training sequence, processes received data packets having a training sequence that the at least one

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receiver identifies, and ignores received data packets having a training sequence that the at least one receiver does not identify.

53. (Previously Presented) The communication system of claim 52, wherein the at least one receiver compares a generated value of the channel estimate with a threshold value indicative of a quality of the channel, processes the received data packet when the generated value of the channel estimate exceeds the threshold value, and ignores the received data packet when the generated value of the channel estimate is less than the threshold value.

54. (Previously Presented) The communication system of claim 53, wherein the channel estimate value is a signal interference ratio, a carrier/interference ratio, a bit error rate, or a ratio of chip energy to disturbance power frequency.

55. (Previously Presented) The communication system of claim 52, wherein the at least one transmitter indicates the training sequence that the at least one receiver is to use on the shared channel before handover to the shared channel.

56. (Previously Presented) The communication system of claim 52, wherein the at least one receiver receives allocated time both on the shared channel and at least one parallel dedicated channel.

57. (Previously Presented) The communication system of claim 56, wherein the at least one parallel dedicated channel is a control channel.

58. (Previously Presented) The communication system of claim 56, wherein the communication system uses a different training sequence on each dedicated channel.

59. (Previously Presented) The communication system of claim 56, wherein the at least one receiver uses, on the shared channel, the same training sequence as the at least one receiver uses on the at least one parallel dedicated channel.

60. (Previously Presented) The communication system of claim 52, wherein the at least one transmitter indicates the training sequence to the at least one receiver via at least one

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of a common control channel and a parallel dedicated channel before handover to the shared channel.

61. (Previously Presented) The communication system of claim 52, wherein the at least one receiver performs a cyclic redundancy check on the identified data packets of the shared channel before further processing.

62. (Previously Presented) The communication system of claim 56, wherein the at least one receiver generates a threshold value for the channel estimate on the basis of a data packet received on the at least one parallel dedicated channel.

63. (Previously Presented) The communication system of claim 52, wherein the communication system is a time division multiple access type of cellular radio network, the shared channel is a timeslot, and the data packets are radio bursts to be sent in the timeslot and include at least the training sequence and data.

64. (Previously Presented) The communication system of claim 63, wherein the communication system uses a time division duplex principle on a carrier of the shared channel.

65. (Previously Presented) The communication system of claim 63, wherein the at least one transmitter sends a plurality of radio bursts simultaneously in the timeslot based on a code division multiple access principle using different spreading codes and uses different training sequences in radio bursts for at least one of different receivers and different receiver groups.

66. (Previously Presented) The communication system of claim 65, wherein the at least one receiver simultaneously receives the plurality of radio bursts with different spreading codes and accepts at least one radio burst having a training sequence that the at least one receiver identifies.

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67. (Previously Presented) The communication system of claim 66, wherein the at least one receiver identifies a radio burst based on both the training sequence and the spreading code.

68. (Currently Amended) A transmitter in a communication system, wherein the ~~which~~ transmitter is

arranged to transmit on a shared channel data packets provided with a training sequence, and ~~characterized in that~~

the transmitter is arranged to transmit on the shared channel data packets addressed to different receivers ~~[[or]]~~ and receiver groups with different training sequences, wherein data packets addressed to at least one of different receivers and different receiver groups are provided with different training sequences.

69. (Previously Presented) A transmitter as claimed in claim 68, characterized in that the transmitter is a base station.

70. (Currently Amended) A receiver in a communication system, wherein the ~~which~~ receiver is

arranged to receive on a shared channel data packets provided with a training sequence, and the receiver is arranged to generate a channel estimate on the basis of the training sequence, ~~characterized in that~~

the receiver is arranged to further process data packets whose training sequence the receiver identified, and

the receiver is arranged to ignore the data packets whose training sequence the receiver does not identify, wherein data packets addressed to at least one of different receivers and different receiver groups are provided with different training sequences.

71. (Previously Presented) A receiver as claimed in claim 70, characterized in that the receiver is a mobile phone.

72. (Currently Amended) A method of identifying information addressed to a user in a communication system, the method comprising:

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providing data packets addressed to at least one of different receivers and different receiver groups with different training sequences particular to the at least one of different receivers and different receiver groups; and

transmitting, ~~on a shared channel on which at least one receiver receives data packets,~~ the data packets provided with the different training sequences particular to the at least one of different receivers and different receiver groups on a shared channel.

73. (Previously Presented) A method of identifying information addressed to a user in a communication system, the method comprising:

receiving a training sequence particular to a receiver;
generating a channel estimate value based on the received training sequence;
receiving, on a shared channel on which at least one receiver receives data packets, data packets including data packets provided with the training sequence particular to the receiver;
attempting to identify the received data packets addressed to the receiver by processing the received data packets having a training sequence that the first receiver identifies and ignoring received data packets having a training sequence that the first receiver does not identify.

74. (New) A module for a transmitter in a communication system, wherein the module is

arranged to provide each data packet for transmission by the transmitter on a shared channel, with a training sequence, and
the module is arranged to provide each data packets addressed to at least one of different receivers and receiver groups with different training sequences for transmission by the transmitter on the shared channel.

75. (New) A module for a receiver in a communication system, wherein the module is

arranged to generate a channel estimate based on a training sequence provided with data packets received on a shared channel,
arranged to further process data packets whose training sequence the module identified, and

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arranged to ignore the data packets whose training sequence the module does not identify, wherein data packets addressed to at least one of different receivers and different receiver groups are provided with different training sequences.